United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92011

In Reply Refer To:
FWS-SDG-4943.2

AUG 1 4 2006

DOCKET
06-AFC-3
DATE AUG 14 2006
RECD. AUG 15 2006

Bill Pfanner, Project Manager
California Energy Commission
1516 9th Street, MS-15
Sacramento, CA 95814

Subject: Comments on the Application for Certification for the LS Power Generation LLC Proposed South Bay Replacement Project

Dear Mr. Pfanner:

The U.S. Fish and Wildlife Service (Service) has received the Application for Certification dated June 30, 2006 (Application) submitted to the California Energy Commission (CEC) for the LS Power Generation LLC (Applicant) Proposed South Bay Replacement Project. The proposed project involves the construction and operation of a new energy facility, the South Bay Replacement Project (SBRP), the decommissioning and demolition of the existing South Bay Power Plant (SBPP), and the construction of a San Diego Gas and Electric substation adjacent to the SBRP site. The Application was forwarded to the Service as part of the CEC's review process.

The CEC requested the Service provide comments regarding disclosure in the Application of potential issues with the project by July 28, 2006. Because we did not receive the Application until July 25, 2006, we committed instead, in an electronic mail message dated July 28, 2006, to providing comments by August 14, 2006. This letter contains a list of the Service's major concerns regarding the proposed project, and, as requested by the CEC, a list of potential issues that were not identified in the Application.

Prior to receiving the Application, the Service submitted a letter dated July 18, 2006, to CH2M HILL, the biological consultant for the proposed project. This letter included general information and recommendations to aid project proponents in avoiding and/or minimizing project impacts to biological resources. A copy of this letter was sent to the CEC on July 28, 2006, to provide preliminary comments on the Application, and is also enclosed with this letter.

The project site is located in the City of Chula Vista, on the southeastern shore of San Diego Bay

(Bay) within an area containing a number of sensitive natural habitats and wildlife species. It is adjacent to the Bay, J Street Marsh, and the South San Diego Bay Unit of the San Diego Bay National Wildlife Refuge (SDB NWR) and is attached to the Chula Vista Wildlife Reserve. It is also near the Sweetwater Marsh Unit of the SDB NWR. These areas provide habitat for a number of federally listed and State listed species, and migratory birds. As such, the Service is concerned with the issues listed below (see enclosed July 18, 2006, letter for further discussion):

- Avian collisions
- Increased predation
- Water temperature change in the vicinity of the effluent channel
- Noise
- Lighting
- Landscaping
- Runoff
- Buffers between project site and sensitive biological areas (i.e., San Diego Bay NWR, J Street Marsh)
- Preventing access to the SDB NWR
- Dust, soil erosion, and siltation
- Shading
- Project footprint
- Turbidity due to in-water construction activities (e.g., pile driving or jetting, dredging, demolition, placement of fill)
- Fill/dredging
- Water quality
- Measures to avoid, minimize, and offset (i.e., mitigate) impacts to biological resources

Most of the general issues of concern listed above were identified in the Application; however, the following specific points were not identified that need to be addressed by the Applicant and the CEC:

- Potential for avian collisions with windows or other clear glass or reflective surfaces
- The possibility of predators to ground nesting birds being attracted to refuse on the proposed site if waste containers do not have lids that are fitted and that stay closed
- Vegetation to be planted in the 100-foot buffer area along the western edge of the project site

- Effects of removing non-native grassland habitat (used as by a number of species for foraging and cover)
- Measures to ensure that there will be no access into the SDB NWR from the project site at any time
- Measures to minimize shading effects of new facilities on adjacent wetland and other habitat resources
- Effects of shockwaves/noise from in-water demolition activities on biological resources
- Effects of equipment used for headwall demolition on water quality
- Measures to prevent runoff in the storm water drainage channel from entering salt ponds adjacent to the site

Thank you for the opportunity to review the Application. We look forward to providing further comments on the proposed project and hopefully resolving all issues of concern to the Service. Should you have any questions regarding the information in this letter, please contact Ayoola Folarin of my staff at (760) 431-9440.

Sincerely,

Therese O'Rourke
Assistant Field Supervisor

cc: Bob Hoffman, NOAA-NMFS
John H. Roberts, SDRWQCB
Andy Yuen, San Diego Refuge Complex
Brian Collins, San Diego Refuge Complex
Victoria Touchstone, San Diego Refuge Complex
Marilyn Fluharty, California Department of Fish and Game

Enclosure (1)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92011

In Reply Refer To:
FWS-SDG-4943.1

Jul 18 2006

Dr. G. O. Graening
Senior Biologist
CH2MHill
2485 Natomas Park Drive, Suite 600
Sacramento, CA 95833

Subject: Request for List of Federally Listed Species and Guidance for Pre-Project Biological Analysis – LS Power's South Bay Replacement Project Proposed Project

Dear Dr. Graening:

The U.S. Fish and Wildlife Service (Service) has received your letter dated, May 11, 2006, in which you requested a list of species with federal status occurring on or in the vicinity of the proposed project site. In your letter, you also requested guidance to help focus your biological analyses in preparation for a possible formal consultation with the Service pursuant to section 7, or habitat conservation plan pursuant to section 10 of the Endangered Species Act (Act) of 1973, as amended.

The proposed project site is located in the South Bay area of the City of Chula Vista, on the southeastern shore of San Diego Bay (Bay). The project involves the construction of a new energy facility, and the decommissioning and demolition of the existing South Bay power plant.

The project site lies within an area containing a number of sensitive natural habitats and wildlife species. It is adjacent to the Bay, J Street Marsh, the South San Diego Bay Unit of the San Diego Bay National Wildlife Refuge (SDB NWR) and is attached to the Chula Vista Wildlife Reserve (see attached figure). It is also near the Sweetwater Marsh Unit of the SDB NWR. These areas provide habitat for a number of federal and state listed species and migratory birds.

To assist you in evaluating whether or not the proposed project may affect listed species, we are providing the attached list of federally listed species that occur in the general project area. A number of State-listed species and California Species of Special Concern are also known to

inhabit the natural habitat areas near the project site. You should contact the California Department of Fish and Game for State-listed and sensitive species that may occur in the area of the proposed project if you have not already done so. Please note that State-listed species are protected under the provisions of the California Endangered Species Act.

The biological analysis for this project should address the project's direct, indirect, and cumulative impacts, and alternatives to avoid and/or minimize these impacts, on the biological communities associated with J Street Marsh, the South San Diego Bay and Sweetwater Marsh Units of the SDB NWR, the Chula Vista Wildlife Reserve, the shoreline and near-shore waters of San Diego Bay, and on the project site. Measures to mitigate unavoidable impacts should also be proposed. All facets of the project (e.g., construction, implementation, operation) should be included in this analysis. The following information and recommendations should be considered when conducting the biological analysis, and incorporated into the project design to avoid and/or minimize project impacts on biological resources:

1. Bird Strikes
   The project site is located in an area that experiences significant bird migration activity. A map showing potential migration corridors through and/or adjacent to the project site should be created as part of the biological analysis. To minimize the potential for bird strikes, we recommend that any tall structures be located away from the Bay and outside the flight-path of migratory birds. In addition, the use of glass or other reflective surfaces on the power plant and associated support structures should be avoided. If the use of glass is proposed on associated buildings within the site, only non-reflective glass in combination with other appropriate measures (e.g., glass etching, decals) should be used to avoid bird collisions.

   To determine if these measures are adequate, we recommend that monitoring for bird strikes be implemented post construction. If there is evidence that bird strikes are occurring, then additional measures should be incorporated to reduce these impacts.

2. Predators
   The proposed development could lead to increased predation levels to State and federally listed species due to increased predator perches and increased food from trash acting as attractants to generalist predators. We recommend that permanent measures (e.g., nixalite) be incorporated to avoid introduction of predator perches on buildings, signs, lighting fixtures, and landscaping with a line of site into any of the surrounding wildlife habitat areas to reduce the potential for take of sensitive wildlife by avian predators. We also recommend interim measures be used on construction cranes and equipment.

   Refuse on site may attract predators such as predatory birds (i.e., corvids and gulls), ants, and rats and other mammals that can prey on endangered species' chicks and eggs. All trash receptacles present on the site, including dumpsters and small containers, should be

of a design that ensure the lids are secured at all times except when trash is being disposed into them. This is necessary to reduce the potential for predatory species to congregate around trash receptacles or otherwise populate the site.

3. Water Temperature
It is our understanding that as the existing power plant on the proposed site is decommissioned, the warm water currently returned to the Bay from the plant will gradually be reduced until warm water is no longer returned to the Bay. The current conditions around the discharge water outlet should be determined as part of the biological analysis for the proposed project. The project proponents should be prepared to detail the plan for carrying out the reduction of warm discharge water (e.g., at what rate the return water will be reduced and the area returned to ambient Bay temperature).

The biological analysis should also determine what effects the reduction will have on the Bay's flora and fauna. For instance, it is theorized that the warm discharge water from the existing power plant has created a hospitable warm water environment for the federally listed green sea turtle (*Chelonia mydas*). Removing the discharge water could thus have an impact on the green sea turtles that inhabit the Bay. The biological analysis should address anticipated impacts to green sea turtles (e.g., if they are expected to relocate and if so, where to; the current condition of the habitats to which they may relocate; and if no negative impacts are anticipated, why not). We recommend working closely with National Marine Fisheries Service on the green sea turtle matter.

We recommend a multi-year post-construction study to monitor changes in the flora and fauna of South Bay resulting from the proposed project.

4. Noise
Potential noise impacts to wildlife, particularly during the breeding season and peak migration periods, could result from construction and demolition activities. Increases in existing noise levels during and after construction within and adjacent to the study area should be avoided or minimized. If necessary, excessive temporary or permanent noise levels beyond the property line should be reduced through appropriate design features.

5. Lighting
Artificial night lighting disrupts important behaviors and physiological processes with significant ecological consequences, including the disorientation of birds during migration. The proposed project should only use night lighting necessary for human safety. All lighting should be low intensity and should be fully shielded and directed downward. No 'vanity lighting' or any other type of lighting that could result in glare or sky glow should be permitted. No lighting from this project should be permitted to fall outside the project boundaries or on any proposed habitat buffer areas. We also recommend a requirement that windows be treated to prevent indoor light from shining through them to help reduce sky glow. Parking lots should be designed or screened so that

the headlights of vehicles parked at night do not shine into adjacent wetlands or other habitat areas.

6. Landscaping
Project landscaping should include only native plant species, and not include exotic plant species that may be invasive to adjacent native habitats. Exotic plant species not to be used include those species listed on Lists A & B of the California Invasive Plant Council's (Cal-IPC) list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999." This list includes such species as pepper trees, pampas grass, fountain grass, ice plant, myoporum, black locust, capeweed, tree of heaven, periwinkle, sweet alyssum, English ivy, French broom, Scotch broom, and Spanish broom. A copy of the complete list can be obtained from Cal-IPPC's web site at http://www.cal-ipc.org. In addition, landscaping should not use plants that require intensive irrigation, fertilizers, or pesticides

To avoid the provision of perching sites for avian predators, landscaping should not include tall trees such as palms that would provide avian predators with a line of site into any of the surrounding wildlife habitat areas.

The Service also recommends removal of exotic species currently on the project site and in the proposed buffer area.

7. Runoff
Water runoff from landscaped areas should be directed away from the Bay and the buffer area and contained and/or treated on the project site. Runoff from the project site should also be prevented from entering the pond system located adjacent to SDB NWR (see attached figure). The drainage channel between the project site and ponds 29 and 28 has breeched in the past, allowing runoff from the site to enter these ponds. These ponds are proposed for tidal restoration and will most likely support migratory birds in the future. Therefore, runoff and other impacts to the pond system should be avoided.

8. Buffer
Adequate buffers should be designed in between sensitive biological areas (i.e., San Diego Bay NWR, J Street Marsh) and the project site to protect sensitive habitats. The buffer should be a minimum of 100 feet wide and be free of all project infrastructure (e.g., erosion control devices, fences, brush management, and trails). The buffers should be located immediately adjacent to the habitat areas. To prevent human and mammalian access into buffer areas, there should be fencing or another suitable barrier system at the outside edge of the habitat buffer prior to the initiation of project construction. No activities recreational or otherwise, should be proposed within the buffer areas.

We recommend that landscaping within the buffer utilize only appropriate locally native species to conserve water, minimize pollutant discharge into wetlands, and minimize the

use of fertilizers and pesticides. No trees should be planted in the buffer adjacent to the SDB NWR, these would act as predator perches. Each habitat buffer should be maintained and monitored for five years or until success criteria, developed in coordination with the Service, are met.

9. Access to the SDB NWR
   Steps should be taken to ensure that there will be no access into the SDB NWR from the project site at any time.

10. Dust, Soil Erosion, and Siltation
    Measures should be provided to minimize the effects of excessive dust, soil erosion, and siltation on adjacent sensitive habitats (e.g., J Street Marsh, buffer area, SDB NWR, and ponds 28 and 29). The quality of habitat within these areas could be degraded if dust and silt are permitted to accumulate as a result of wind and water action during construction.

11. Shading
    The project should be designed to minimize shading effects of buildings on adjacent wetland and other habitat resources.

12. Project Footprint
    The proposed project site is located on 19.4 acres of previously developed land just south of the existing power plant. The footprint of the new power plant should be restricted to the developed area as planned and not expand into adjacent habitats.

If any construction/demolition activities are to take place within the Bay:

13. Turbidity
    In-water construction activities (e.g., pile driving or jetting, dredging, demolition, placement of fill) can reduce the ability of sight-foraging birds, such as the least tern and brown pelican, to see and catch their fish prey in the water column. Decreases in light penetration can also decrease photosynthesis by phytoplankton, kelp, and eelgrass; increased turbidity may also negatively impact green sea turtles. Shock waves and noise from demolition and pile driving may further impact marine organisms. The biological analysis should determine what measures would need to be taken to reduce impacts caused by any in-water construction activities that may take place as part of the proposed project. In-water construction activities should not occur during the least tern (*Sterna antillarum browni*) breeding season (April 1 – September 15).

14. Fill/Dredging
    The biological analysis should determine the cubic footage and depth of anticipated fill or dredging, and detail any anticipated changes to Bay habitats [i.e., intertidal habitat (+7.8 feet to -2.2 feet MLLW); shallow subtidal habitat (-2.2 to -12 feet MLLW); medium subtidal habitat (-12 feet MLLW to -20 feet MLLW); and open water habitat].

15. Water Quality
    Depending on the physical and chemical characteristics of the dredge material, dredging could result in the resuspension and redistribution of sediments and increased exposure of chemical contaminants to marine resources. Construction equipment may impact water quality by releasing petroleum products, sewage, litter, cleaning agents, and other toxic materials into marine waters. The biological analysis should evaluate contamination of any sediment to be dredged and other impacts to water quality in the Bay and adjacent wetlands including runoff during and after construction.

16. Eelgrass Mitigation
    Impacts to eelgrass (*Zostera marina*) vegetated areas, which are recognized as important ecological communities in shallow Bays and estuaries because of their multiple biological and physical values, should be evaluated and mitigated in accordance with the Southern California Eelgrass Mitigation Policy (revision 10).

Should you have any questions regarding the species on the enclosed list, your responsibilities under the Act, or any other information in this letter, please contact Ayoola Folarin of my staff at (760) 431-9440.

Sincerely,

//s//David Zoutendyk, for
Therese O'Rourke
Assistant Field Supervisor

cc: Debra Crowe, CH2MHILL
Bob Hoffman, NOAA-NMFS
John H. Roberts, SDRWQCB
Andy Yuen, San Diego Refuge Complex
Brian Collins, San Diego Refuge Complex
Victoria Touchstone, San Diego Refuge Complex
Marilyn Fluharty, California Department of Fish and Game

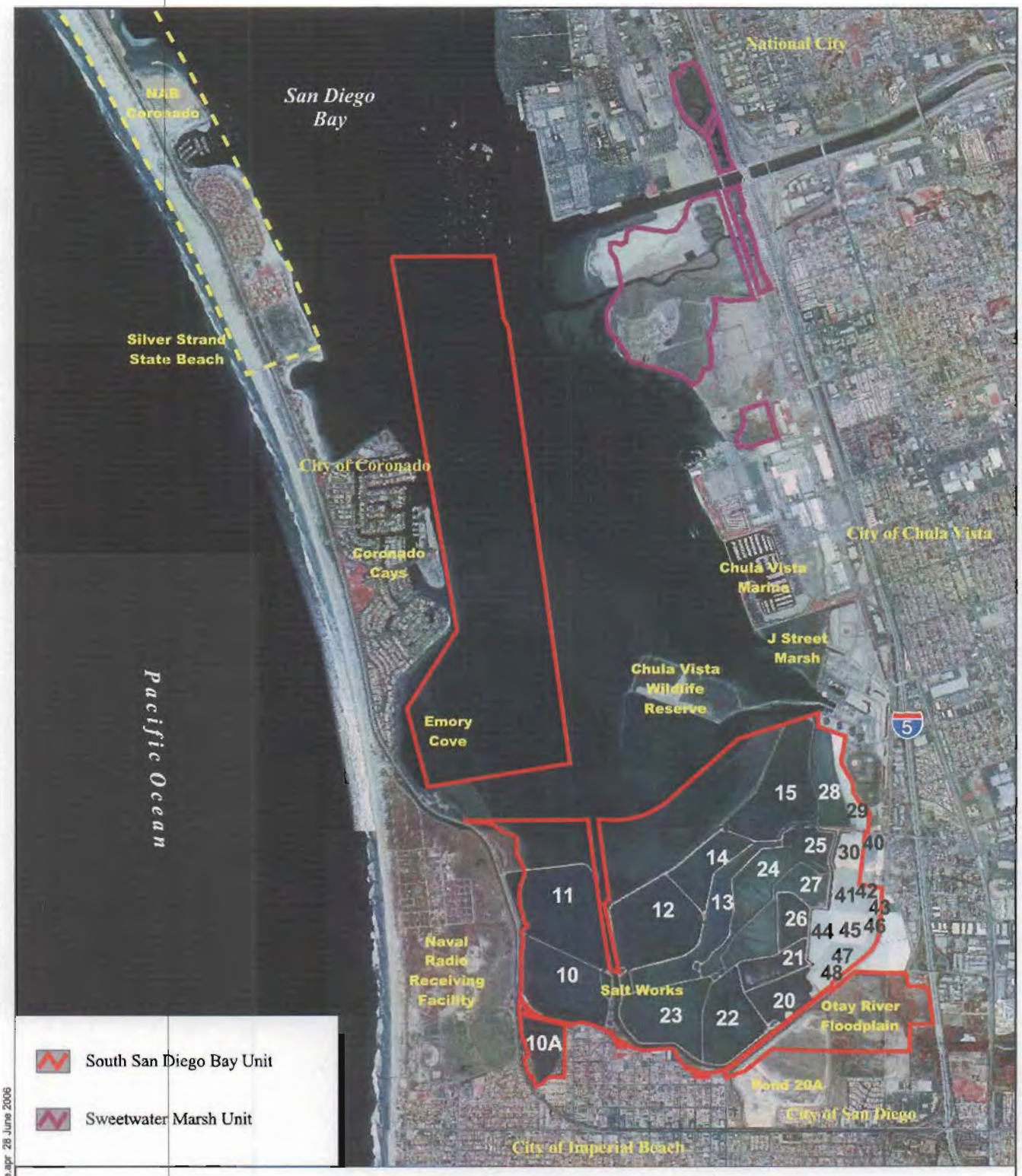
Enclosure

Listed Endangered, Threatened
and Proposed Species that may occur in South Bay

Common Name	**Scientific Name**	**Status**
BIRDS		
western snowy plover	*Charadrius alexandrinus nivosus*	T
California least tern	*Sterna antillarum browni*	E
brown pelican	*Pelecanus occidentalis*	E
California gnatcatcher	*Polioptila californica californica*	T
light-footed clapper rail	*Rallus longirostris levipes*	E
REPTILES		
Pacific green sea turtle*	*Chelonia mydas*	T
PLANTS		
salt marsh birds beak	*Cordylanthus maritimus* ssp. *maritimus*	E

*Under the jurisdiction of the National Marine Fisheries Service

T=Threatened
E=Endangered



San Diego Bay National Wildlife Refuge and Surrounding Resource Areas

N

0 0.25 0.5 Miles

Source: USFWS, Local Agency Partnership 2000 (2 ft imagery)

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